

CLAIMS:

1. An actuarial data processing system comprising data input means for inputting client information, output means for outputting information, storage means and processing means, wherein the processing means is adapted to use the client information and data stored in the storage means to produce a scoring statistic representative of the client's level of health, and to use the scoring statistic to produce and output a value representative of client life expectancy.
2. An actuarial data processing system as claimed in Claim 1, wherein standard actuarial data is stored in the storage means.
3. An actuarial data processing system as claimed in Claim 1 or Claim 2, wherein medical advancement data is additionally stored in the storage means.
4. An actuarial data processing system as claimed in any one of the preceding claims, wherein prudence correction data is additionally stored in the storage means.
5. An actuarial data processing system as claimed in any one of the preceding claims, wherein interest data is additionally stored in the storage means.
6. An actuarial data processing system as claimed in any one of the preceding claims, wherein expenses and expected profits data is additionally stored in the storage means.
7. An actuarial data processing system as claimed in any one of the preceding claims, wherein annuity factors are additionally stored in the storage means.
8. An actuarial data processing system as claimed in any one of the preceding claims, wherein the processing means is additionally adapted to calculate a premium.

0997572-101504

9. An actuarial data processing system as claimed in any one of the preceding claims, wherein the processing means is adapted to make an adjustment for medical advances and prudence.
10. An actuarial data processing system as claimed in any one of the preceding claims, wherein the processing means is adapted to make an adjustment for interest assumptions.
11. An actuarial data processing system as claimed in any one of the preceding claims, wherein the processing means is adapted to make an adjustment to take account of expenses and profits.
12. An actuarial data processing system as claimed in any one of the preceding claims, wherein the processing means is adapted to operate the following process

$$e = \sum_{t=0}^{\infty} tpx$$

wherein

$tpx = t - 1px \cdot (1 - q(x, M/F, t) - k(x, M/F, s); opx = 1,$

and

$q(x, M/F, t)$  is the probability of death at age  $x+t$  for the appropriate sex and  $k(x, M/F, s)$  represents an addition factor based on impairment and quality of life yielding a scoring statistic of  $s$  for a life aged  $x$  for the appropriate sex.

13. An actuarial method comprising
  - assigning a statistic to a client based on the client's level of health,
  - deriving data from a standard actuarial table, and
  - producing a value representative of the client life expectancy using the statistic and the derived data.
14. An actuarial method comprising

assigning a statistic to a client based on the client's level of health,  
 deriving data from a standard actuarial table,  
 producing a value representative of the client life expectancy using the statistic  
 and the derived data, and  
 using the value produced to calculate a premium.

15. An actuarial method as claimed in Claim 13 or 14, further comprising making an adjustment to take account of medical advances and prudence.
16. An actuarial method as claimed in any one of Claims 13 to 15, further comprising making an adjustment for interest assumptions.
17. An actuarial method as claimed in any one of Claims 13 to 16, further comprising making an adjustment to take account of expenses and expected profits.
18. An actuarial method as claimed in any one of Claims 13 to 17, further comprising calculating annuity factors.
19. An actuarial method as claimed in any one of Claims 13 to 18, wherein the annuity factors are incorporated into the value prior to calculation of the premiums.
20. An actuarial method as claimed in any one of Claims 13 to 19, wherein the value is calculated using

$$e = \sum_{t=0}^{\infty} t p x$$

wherein

$t p x = t \cdot l p x \cdot (1 - q(x, M/F, t) - k(x, M/F, s); o p x = 1,$

and

$q(x, M/F, t)$  is the probability of death at age  $x+t$  for the appropriate sex and  $k(x, M/F, s)$  represents an addition factor based on impairment and quality of life yielding a statistic of  $s$  for a life aged  $x$  for the appropriate sex.

21. An actuarial data processing system for carrying out an actuarial method comprising a memory storing processor readable code; and a processor for reading and implementing the code in the memory, wherein the processor readable code comprises code for controlling the processor to be configured as the processing system of any one of Claims 1 to 12.
22. An actuarial data processing system for carrying out an actuarial method comprising a memory storing processor readable code; and a processor for reading and implementing the code in the memory, wherein the processor readable code comprises code for controlling the processor to implement the method of any one of Claims 13 to 20.
23. A carrier medium carrying computer readable code for controlling a computer to be configured as the processing system of Claims 1 to 12.
24. A carrier medium carrying computer readable code for controlling a computer to implement the method of Claims 13 to 20.
25. A computer system for processing actuarial data, comprising a data store storing data on a client's level of health, and standard actuarial table data; and a processor programmed to assign a statistic based on the client's level of health stored in the data store, to derive data using the standard actuarial table data in the data store, and to produce a value representative of the client's life expectancy using the statistic and the derived data.